

Review article

Medicinal plant genetic resources of Bangladesh exhibiting anti-dengue activity: A review

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ABSTRACTS

Dengue fever, caused by the arthropod-borne dengue virus, has experienced a global increase, with the number of cases rising from 500,000 to 5.2 million and over 5000 deaths within the last two decades. Although dengue incidence in Bangladesh fluctuated from 1964 to 1999, peaking in 2000, it has since spread, impacting thousands of lives and causing diseases. There is currently no (or limited availability of) effective dengue vaccination and antiviral medication. A comprehensive review was conducted to identify the local medicinal plants with anti-dengue activity. A total of 73 species belonging to 42 families possess anti-dengue properties; some also have insecticidal properties, especially against *Aedes* species. Medicinal plants possess different types of secondary metabolites, for example, phenolic derivatives, alkaloids, flavonoids, terpenoids, and polysaccharides with compound-specific dengue preventing mechanisms. The conversion of these medicinal plants into prescription drugs to treat dengue infections requires more clinical investigation.

Key words: Alkaloids, dengue, flavonoids, polysaccharides, terpenoids, total phenolics